

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

- 1 An animal feed supplement which includes fish meal as a source of omega 3 long chain fatty acids for inclusion in the diet of said animal; wherein, the fatty acids are increased to a level which maximises the nutritional value of the food produce from said animal but without taint of said produce.
- 2 An animal feed supplement according to claim 1 wherein the percentage of fishmeal is greater than 5% of the total dietary intake of the animal.
- 3 An animal feed supplement according to claim 2 wherein the supplement supplies the long chain fatty acids Decosahexaenoic Acid (DHA), Docosapentaenoic acid (DPA) and Eicosapentaenoic acid (EPA).
- 4 An animal feed supplement according to claim 3 wherein the animal produce is pork, poultry meat, lamb, eggs, beef or farmed fish.
- 5 An animal feed supplement which includes fish meal as a source of omega 3 long chain fatty acids for inclusion in the diet of said animal; wherein, the fatty acids are increased to a level which maximises the nutritional value of the food produce from said animal by increased level of long chain omega 3 fatty acids but without taint of said produce; wherein the percentage of supplement is greater than 5% of the total dietary intake of the animal and wherein the supplement produces the long chain fatty acids Decosahexaenoic Acid (DHA), Docosapentaenoic acid (DPA) and Eicosapentaenoic acid (EPA) and wherein the animal produce is pork, poultry meat, lamb, eggs, beef or farmed fish.
- 6 An animal feed supplement for inclusion in the diet of an animal to maximise the level of long chain omega 3 fatty acids in the animal produce and without taint of the produce; wherein the supplement includes a blend of fish meal, an oil based premix, a drymix premix, water based green tea extract.

7 An animal feed supplement for inclusion in the diet of an animal to maximise the level of long chain omega 3 fatty acids in the animal produce and without taint of the produce; wherein the supplement includes a blend of fish meal, an oil based premix, a drymix premix, water based green tea extract wherein the fish meal, oil based premix, drymix premix and water based green tea extract are blended in the following proportions:

	kg	%
Fish Meal	983.00	98.300
Oil based premix	10.00	1.000
Dry mix Premix	5.00	0.500
Water baseed infused green tea extract	2.00	0.200
	1000.00	100.000

8 An animal feed supplement according to claim 7 wherein the oil based premix comprises a blend of the following ingredients;

Ethoxyquin vitamin grade	Crude palm oil
Aniseed China Star	Rosemary oil
Thyme white oil	Peppermint oil
Benzoic Acid	Phosphoric Acid 81%
Crude Canola oil Carrier.	

9 An animal feed supplement according to claim 8 wherein the constituents of the oil based premix per tonne of a food base are blended in the following proportions

	kg	%
1 Ethoxyquin vitamin grade	0.400	4.00
2 Crude palm oil	1.500	15.00
3 Aniseed China Star	0.067	0.67
4 Rosemary oil	0.100	1.00
5 Thyme white oil	0.100	1.00
6 Peppermint oil	0.150	1.50
7 Benzoic Acid	0.005	0.05
8 Phosphoric Acid 81%	0.250	2.50
9 Crude Canola oil Carrier.	7.428	74.28
	10.000	100.00

10 An animal feed supplement according to claim 9 wherein the drymix premix comprises a blend of the following ingredients;

Vitamin E 50  
Vitamin C  
Citric Acid  
Propyl Gallate  
Calcium Propionate  
Wheat Meal Carrier

11 An animal feed supplement according to claim 10 wherein the constituents of the drymix premix per tonne of food base are blended in the following proportions;

		kg	%
10	Vitamin E 50	0.800	16.00
11	Vitamin C	0.500	10.00
12	Citric Acid	0.500	10.00
13	Propyl Gallate	0.100	2.00
14	Calcium Propionate	0.500	10.00
15	Wheat Meal Carrier	2.600	52.00
		-----	-----
		5.000	100.00
		-----	-----

12 An animal feed supplement according to claim 11 wherein the Vitamin C and Citric Acid are scavenger antioxidants.

13 An animal feed supplement according to claim 12 wherein the percentage of supplement is greater than 5% of the total dietary intake of the animal.

14 An animal feed supplement according to claim 13 wherein the percentage of feed supplement is 15% of the total diet of the animal.

15 An animal feed supplement according to claim 14 wherein the supplement supplies the long chain fatty acids Decosahexaenoic Acid (DHA), Docosapentaenoic acid (DPA) and Eicosapentaenoic acid (EPA).

16 An animal feed supplement according to claim 15 wherein the animal produce is pork, poultry meat, lamb, eggs, beef or farmed fish.

17 An animal feed supplement for inclusion in the diet of an animal to maximise the level of long chain omega 3 fatty acids in the animal produce and without taint of the produce; wherein the supplement includes a blend of fish meal, an oil based premix, a drymix premix, water based green tea extract wherein the fish meal, oil based premix, drymix premix and water based green tea extract are collectively formed from the following constituents;

Tuna Meal	Ethoxyquin vitamin grade
Crude palm oil	Aniseed China Star
Rosemary oil	Thyme white oil
Peppermint oil	Benzoic Acid
Phosphoric Acid 81%	Crude Canola oil Carrier.
Vitamin E 50	Vitamin C
Citric Acid	Propyl Gallate
Calcium Propionate	Water based green tea extract
Wheat Meal Carrier.	

18 An animal feed supplement according to claim 17 wherein the supplement constituents are blended in the following proportions proportions per tonne of food base:

	kg	%
Tuna Meal	983.000	98.300
Ethoxyquin vitamin grade	0.400	0.040
Crude palm oil	1.500	0.150
Aniseed China Star	0.067	0.007
Rosemary oil	0.100	0.010
Thyme white oil	0.100	0.010
Peppermint oil	0.150	0.015
Benzoic Acid	0.005	0.001
Phosphoric Acid 81%	0.250	0.025
Crude Canola oil Carrier.	7.428	0.743
Vitamin E 50	0.800	0.080
Vitamin C	0.500	0.050
Citric Acid	0.500	0.050
Propyl Gallate	0.100	0.010
Calcium Propionate	0.500	0.050
Water based green tea extract	2.00	0.200
Wheat Meal Carrier	2.600	0.260
	1000.000	100.000

- 19 An animal feed supplement for inclusion in the diet of an animal to maximise the level of omega 3 fatty acids in the animal produce and without taint of the produce; wherein the supplement includes fish meal; an oil based premix and a drymix premix blended from the following constituents;

Tuna Meal	Ethoxyquin vitamin grade
Crude palm oil	Rosemary oil
Thyme white oil	Peppermint oil
Benzoic Acid	Phosphoric Acid 81%
Crude Canola oil Carrier.	Vitamin E 50
Vitamin C	Citric Acid
Propyl Gallate	

- 20 An animal feed supplement according to claim 19; wherein the tuna meal, oil based premix and drymix premix are blended from the following constituents and relative proportions;

	%
Tuna Meal (containing 11% - 13% oil)	98.500
Ethoxyquin vitamin grade	0.040
Crude palm oil	0.150
Rosemary oil	0.010
Thyme white oil	0.010
Peppermint oil	0.015
Benzoic Acid	0.001
Phosphoric Acid 81%	0.025
Crude Canola oil Carrier.	0.743
Vitamin E 50	0.080
Vitamin C	0.050
Citric Acid	0.050
Propyl Gallate	0.010

- 21 An animal feed supplement according to claim 20 wherein the supplement further comprises the following constituent proportions;

	%
Vanillic Crystals	0.013
Aniseed China Star	0.007
Calcium Propionate	0.050
Wheat Meal	0.260.

22 A method of feeding animals for use as food produce for human consumption using a fish meal based food supplement such that the produce from said animals has a maximised level of long chain omega 3 fatty acids yet is free from taint; wherein the method comprises the steps of :

- a) selecting constituents for a fish meal supplement comprising fish meal, an oil based premix a dry mix premix and water based green tea extract,
- b) preparing the dry mix premix and oil based premix;
- c) blending the constituents in predetermined proportions of the supplement;
- d) selecting additives for the supplement for forming a feed supplement appropriate to the stage of development of the animal to which the supplement is fed,
- e) blending the additives with the fish meal, dry mix premix, oil based premix and water based green tea extract;
- c) feeding said animals with the supplement;

wherein the supplement is within the range of 5% - 20% of the animal's total diet.

23 A method of feeding animals using a fish meal based supplement which includes a dry mix premix, an oil based premix and a water based green tea extract wherein the supplement is within the range of 10% - 20% of the animals' total diet wherein the , the supplement includes the following active ingredients;

Tuna Meal  
Crude palm oil  
Thyme white oil  
Benzoic Acid  
Crude Canola oil Carrier.  
Vitamin C  
Propyl Gallate

Ethoxyquin vitamin grade  
Rosemary oil  
Peppermint oil  
Phosphoric Acid 81%  
Vitamin E 50  
Citric Acid

wherein the method comprises the following steps:

- a) blending the constituents in predetermined proportions of the supplement;

- b) selecting additives for the supplement for forming a feed supplement appropriate to the stage of development of the animal to which the supplement is fed,
- c) blending the additives with the constituents;
- c) feeding said animals with the supplement.

24 A method according to claim 23 wherein the method comprises the further step prior to or after blending of the dry mix and fish meal of :

- a) preparing the ingredients of said oil based premix according to the following mixing sequence;

Crude Canola Oil	Crude Palm Oil
Phosphoric Acid 81%	Benzoic Acid
Ethoxyquin Vitamin Grade	Aniseed China Star
Rosemary Oil	Thyme White Oil
Peppermint Oil	

- b) high speed mixing of said ingredients to create a homogeneous stable emulsion.

25. A method according to claim 24 wherein the method includes the step prior to steps a) and b) of claim 24, preparing the ingredients according to the following steps:

- i) heating to above 50 degrees C to liquify the Crude palm oil;
- ii) heating to above 22 degrees C to liquify the Aniseed china star
- iii) heating to above 20 degrees C to liquify the Crude Canola Oil.

26 A method according to claim 23 comprising the further step prior to or after blending of the oil emulsion and fish meal of ;

- a) preparing the dry mix by combining the following ingredient sequence:

Wheat Meal	Vitamin E - 50
Vitamin C	Citric Acid
Propyl Gallate	Calcium Propionate
Green Tea Powder	Vanillic Crystals

- b) mixing the dry mix with the oil based premix and fish meal.

27. A method according to claim 26 wherein the Oil based premix is applied by fine spray to the Fish (Tuna) meal; Aqueous Extraction is applied by fine spray to the Tuna meal; wherein the dry mix is added to the Tuna meal followed by mixing the whole to produce a homogeneous blend.

28 A method according to claim 27 wherein nutritional premixes supplying vitamin and mineral requirements of particular species and stage of life cycle/development may be included in the food supplement to satisfy the nutritional completeness of a selected supplement.

29 A method according to claim 28 wherein, the feed supplement provides a supply of long chain fatty acids such as DHA, DPA and EPA.

30 A method according to claim 29 wherein, the feed supplement comprises 15% of the dietary intake of the animal.

31 An animal feed supplement which includes fish meal as a source of omega 3 long chain fatty acids and which is greater than 5% of the total dietary intake of an animal wherein the supplement includes the following composition of ingredients;

- i) a food base comprising fish meal, an oil based premix and a dry mix;
- ii) a vitamin premix;
- iii) a mineral premix;
- iv) an amino acid premix; and
- v) choline chloride.

32 An animal feed supplement according to claim 31 wherein ingredient i) is a supplement base and ingredients ii) -v) are nutritional additives.

33 A feed supplement according to claim 32 wherein the supplement is blended according to the following proportions:



PORCOMEGA* BASE- SP	970.80	97.080
VITAMIN PREMIX PV 001	2.50	0.250
MINERAL PREMIX PM 001	10.00	1.000
AMINO ACID PREMIX PAA 001	10.00	1.000
CHOLINE CHLORIDE 60%	6.70	0.670
	1000.00	100.000

34 A supplement formula according to claim 33 wherein the vitamin premix is prepared according to the following composition;

COMPOSITION INGREDIENT	POTENCY/GM	FORMULA	ACTIVE /Kg PREMIX
VITAMIN A-500	500,000 IU	53.60 gm	26,800,000 IU
VITAMIN D3-500	500,000 IU	13.40 gm	6,700,000 IU
VITAMIN E-50%	500 IU	52.80 gm	26,400 IU
VITAMIN K3	1000 mg	4.02 gm	4.02 gm
THIAMINE HYDROCHLORIDE USP	892 mg	4.51 gm	4.02 gm
RIBOFLAVIN 95% F.G.	950 mg	11.28 gm	10.72 gm
PYRIDOXINE USP	823 mg	6.51 gm	5.36 gm
VITAMIN B12-SUPPLEMENT 1%	10 mg	5.36 gm	53.60 mg
NIACIN USP	990 mg	54.14 gm	53.60 gm
CALCIUM D-PANTOTHENATE USP	920 mg	34.96 gm	32.16 gm
FOLIC ACID USP	920 mg	4.37 gm	4.02 gm
D-BIOTIN SUPPLEMENT 1%	10 mg	21.44 gm	214.40 mg
VANILLIC CRYSTALS	1000 mg	53.60 gm	53.60 gm
WHEAT MEAL CARRIER		680.01 gm	
		1000.00 gm	

35. A supplement formula according to claim 34 wherein the supplement base and complete feed vitamin addition are blended to provide the following composition:

COMPOSITION INGREDIENT	ACTIVE /Tonne PORCOMEGA*	ACTIVE /Kg COMPLETE FEED
VITAMIN A-500	67,000,000 IU	10,000 IU
VITAMIN D3-500	16,750,000 IU	2,500 IU
VITAMIN E-50%	466,000 IU	69.5 IU
VITAMIN K3	10.05 gm	1.50 mg
THIAMINE HYDROCHLORIDE USP	10.05 gm	1.50 mg
RIBOFLAVIN 95% F.G.	26.80 gm	4.00 mg
PYRIDOXINE USP	13.40 gm	2.00 mg
VITAMIN B12-SUPPLEMENT 1%	134.00 mg	20.00 mcg
NIACIN USP	134.00 gm	20.00 mg
CALCIUM D-PANTOTHENATE USP	80.40 gm	12.00 mg
FOLIC ACID USP	10.05 gm	1.50 mg
D-BIOTIN SUPPLEMENT 1%	536.00 mg	80.00 mcg
CHOLINE CHLORIDE	4020.00 gm	600.00 mg
VANILLIC CRYSTALS	134.00 gm	20.00 mg

36. A supplement formula according to claim 35 wherein the mineral premix is prepared according to the following composition:

COMPOSITION ----- INGREDIENT -----	POTENCY/GM -----	FORMULA -----	ACTIVE ----- /Kg PREMIX -----
FERROUS SULPHATE (Fe SO <sub>4</sub> .H <sub>2</sub> O)	310.0 mg	216.125 gm	67.000 gm
ZINC SULPHATE	360.0 mg	186.110 gm	67.000 gm
MANGANESE SULPHATE (Mn SO <sub>4</sub> .H <sub>2</sub> O)	280.0 mg	95.715 gm	26.800 gm
POTASSIUM IODIDE(STAB)	68.8 mg	0.488 gm	0.335 gm
COBALT CARBONATE	460.0 mg	0.728 gm	0.335 gm
COPPER SULPHATE	250.0 mg	335.000 gm	83.750 gm
SODIUM SELENITE	400.0 mg	0.504 gm	0.201 gm
LIMESTONE CARRIER	1000.0 mg	165.330 gm	165.330 gm
		1000.000 gm -----	

37. A supplement formula according to claim 36 wherein the supplement food base and complete feed mineral addition are blended to provide the following composition;

COMPOSITION ----- INGREDIENT -----	ACTIVE ----- /Tonne PORCOMEGA* -----	ACTIVE ----- /Kg COMPLETE FEED -----
FERROUS SULPHATE-Fe (Fe SO <sub>4</sub> .H <sub>2</sub> O)	670.00 gm	100.500 mg
ZINC SULPHATE-Zn	670.00 gm	100.500 mg
MANGANESE SULPHATE-Mn (Mn SO <sub>4</sub> .H <sub>2</sub> O)	268.00 gm	40.200 mg
POTASSIUM IODIDE(STAB)-I	3.35 gm	0.502 mg
COBALT CARBONATE-Co	3.35 gm	0.502 mg
COPPER SULPHATE-Cu	837.50 gm	125.625 mg
SODIUM SELENITE-Se	2.01 gm	0.301 mg

38. A supplement formula according to claim 37 wherein the supplement food base and amino acid premix is prepared according to the following composition:

PIGLET STARTER EW AMINO ACID PREMIX PAA OOI

COMPOSITION ----- INGREDIENT -----	FORMULA -----	/Kg PREMIX -----
I-LYSINE	6700.00 gm	670.00 gm
dl-METHIONINE	1340.00 gm	134.00 gm
THREONINE	1340.00 gm	134.00 gm
WHEAT MEAL CARRIER	620.00 gm	
	10000.00 gm	

39. A supplement formula according to claim 38 wherein the supplement base and amino acid additions are blended to provide the following composition:

AMINO ACID ADDITIONS -----	/Tonne PORCOMEGA* -----	/Kg COMPLETE FEED -----
I-LYSINE	6700.00 gm	1000.00 mg
dl-METHIONINE	1340.00 gm	200.00 mg
THREONINE	1340.00 gm	200.00 mg

- 40 A supplement formula according to claim 39 wherein the formula is fed to piglets as a starter.

41 A supplement formula according to claim 40 wherein the supplement is blended according to the following proportions:

	kg	%
PORCOMEGA* BASE SP	970.80	97.080
VITAMIN PREMIX PV 002	2.50	0.250
MINERAL PREMIX PM 002	10.00	1.000
AMINO ACID PREMIX PAA 002	10.00	1.000
CHOLINE CHLORIDE 60%	6.70	0.670
	1000.00	1000.000
USAGE :- 150 KG PER TONNE OF PIG WEANER DIET 002.		

42 A supplement formula according to claim 41 wherein the vitamin premix is prepared according to the following composition;

COMPOSITION ----- INGREDIENT -----	POTENCY/GM	FORMULA	ACTIVE ----- /Kg PREMIX -----
VITAMIN A-500	500,000 IU	53.60 gm	26,800,000 IU
VITAMIN D3-500	500,000 IU	13.40 gm	6,700,000 IU
VITAMIN E-50%	500 IU	52.80 gm	26,400 IU
VITAMIN K3	1000 mg	4.02 gm	4.02 gm
THIAMINE HYDROCHLORIDE USP	892 mg	3.00 gm	2.68 gm
RIBOFLAVIN 95% F.G.	950 mg	9.87 gm	9.38 gm
PYRIDOXINE USP	823 mg	4.88 gm	4.02 gm
VITAMIN B12-SUPPLEMENT 1%	10 mg	4.69 gm	46.90 mg
NIACIN USP	990 mg	40.61 gm	40.20 gm
CALCIUM d-PANTOTHENATE USP	920 mg	34.96 gm	32.16 gm
FOLIC ACID USP	920 mg	4.37 gm	4.02 gm
D-BIOTIN SUPPLEMENT 1%	10 mg	13.40 gm	134.00 mg
VANILLIC CRYSTALS	1000 mg	53.60 gm	53.60 gm
WHEAT MEAL CARRIER		700.07 gm	
		1000.00 gm	

43. A supplement formula according to claim 42 wherein the supplement base and complete feed vitamin addition are blended to provide the following composition:

COMPOSITION ----- INGREDIENT	ACTIVE ----- /Tonne PORCOMEGA*	ACTIVE ----- /Kg COMPLETE FEED
VITAMIN A-500	67,000,000 IU	10,000 IU
VITAMIN D3-500	16,750,000 IU	2,500 IU
VITAMIN E-50%	466,000 IU	69.5 IU
VITAMIN K3	10.05 gm	1.50 mg
THIAMINE HYDROCHLORIDE USP	6.70 gm	1.00 mg
RIBOFLAVIN 95% F.G.	23.45 gm	3.50 mg
PYRIDOXINE USP	10.05 gm	1.50 mg
VITAMIN B12-SUPPLEMENT 1%	117.25 mg	17.50 mcg
NIACIN USP	100.50 gm	15.00 mg
CALCIUM D-PANTOTHENATE USP	67.00 gm	10.00 mg
FOLIC ACID USP	10.05 gm	1.50 mg
D-BIOTIN SUPPLEMENT 1%	335.00 mg	50.00 mcg
CHOLINE CHLORIDE	3350.00 gm	500.00 mg
VANILLIC CRYSTALS	134.00 gm	20.00 mg

44. A supplement formula according to claim 43 wherein the mineral premix is prepared according the the following composition:

COMPOSITION ----- INGREDIENT	POTENCY/GM	FORMULA	ACTIVE ----- /Kg PREMIX
FERROUS SULPHATE (Fe SO4.H2O)	310.0 mg	216.125 gm	67.000 gm
ZINC SULPHATE	360.0 mg	186.110 gm	67.000 gm
MANGANESE SULPHATE (Mn SO4.H2O)	280.0 mg	95.715 gm	26.800 gm
POTASSIUM IODIDE(STAB)	68.8 mg	0.488 gm	0.335 gm
COBALT CARBONATE	460.0 mg	0.728 gm	0.335 gm
COPPER SULPHATE	250.0 mg	335.000 gm	83.750 gm
SODIUM SELENITE	400.0 mg	0.504 gm	0.201 gm
LIMESTONE CARRIER	1000.0 mg	165.330 gm	165.330 gm
		1000.000 gm	

45. A supplement formula according to claim 44 wherein the supplement food base and complete feed mineral addition are blended to provide the following composition;

COMPOSITION ----- INGREDIENT -----	ACTIVE ----- /Tonne PORCOMEGA* -----	ACTIVE ----- /Kg COMPLETE FEED -----
FERROUS SULPHATE-Fe (Fe SO <sub>4</sub> .H <sub>2</sub> O)	670.00 gm	100.500 mg
ZINC SULPHATE-Zn	670.00 gm	100.500 mg
MANGANESE SULPHATE-Mn (Mn SO <sub>4</sub> .H <sub>2</sub> O)	268.00 gm	40.200 mg
POTASSIUM IODIDE(STAB)-I	3.35 gm	0.502 mg
COBALT CARBONATE-Co	3.35 gm	0.502 mg
COPPER SULPHATE-Cu	837.50 gm	125.625 mg
SODIUM SELENITE-Se	2.01 gm	0.301 mg

46. A supplement formula according to claim 45 wherein the supplement food base and amino acid premix is prepared according to the following composition:

COMPOSITION ----- INGREDIENT -----	FORMULA -----	/Kg PREMIX -----
L-LYSINE	6700.00 gm	670.00 gm
D-METHIONINE	1340.00 gm	134.00 gm
THREONINE	1340.00 gm	134.00 gm
WHEAT MEAL CARRIER	620.00 gm	
	----- 10000.00 gm -----	

47 A supplement formula according to claim 46 wherein the supplement base and amino acid additions are blended to provide the following composition:

COMPOSITION ----- INGREDIENT -----	FORMULA -----	/Kg PREMIX -----
L-LYSINE	6700.00 gm	670.00 gm
DL-METHIONINE	1340.00 gm	134.00 gm
THREONINE	1340.00 gm	134.00 gm
WHEAT MEAL CARRIER	620.00 gm	
	----- 10000.00 gm -----	

48 A supplement formula according to claim 47 wherein the formula is fed to piglets as a weaner.

49 An animal feed supplement formula which includes fish meal as a source of omega 3 long chain fatty acids and which is greater than 5% of the total dietary intake of an animal wherein the supplement comprises;

- i) a fish meal food base
- ii) a vitamin premix; and
- iii) a mineral premix.

50 A supplement formula according to claim 49 wherein the supplement is blended according to the following proportions:

	kg -----	% -----
PORCOMEGA* BASE SP	987.50	98.750
VITAMIN PREMIX PV 003	2.50	0.250
MINERAL PREMIX PM 003	10.00	1.000
	----- 1000.00 -----	----- 100.000 -----

- 51 A supplement formula according to claim 50 wherein the vitamin premix is prepared according to the following composition;

COMPOSITION ----- INGREDIENT -----	POTENCY/GM	FORMULA	ACTIVE ----- /Kg PREMIX -----
VITAMIN A-500	500,000 IU	53.60 gm	26,800,000 IU
VITAMIN D3-500	500,000 IU	5.36 gm	2,680,000 IU
VITAMIN E-50%	500 IU	134.00 gm	67,000 IU
VITAMIN K3	1000 mg	10.05 gm	10.05 gm
THIAMINE HYDROCHLORIDE USP	892 mg	4.51 gm	4.02 gm
RIBOFLAVIN 95% F.G.	950 mg	14.11 gm	13.40 gm
PYRIDOXINE USP	823 mg	4.88 gm	4.02 gm
VITAMIN B12-SUPPLEMENT 1%	10 mg	4.02 gm	40.20 mg
NIACIN USP	990 mg	54.14 gm	53.60 gm
CALCIUM D-PANTOTHENATE USP	920 mg	29.13 gm	26.80 gm
FOLIC ACID USP	920 mg	2.91 gm	2.68 gm
D-BIOTIN SUPPLEMENT 1%	10 mg	53.60 gm	536.00 mg
VANILLIC CRYSTALS	1000 mg	13.40 gm	13.40 gm
WHEAT MEAL CARRIER		616.29 gm	
		1000.00 gm	

52. A supplement formula according to claim 51 wherein the supplement base and complete feed vitamin addition are blended to provide the following composition:

COMPOSITION ----- INGREDIENT -----	ACTIVE ----- /Tonne PORCOMEGA*	ACTIVE ----- /Kg COMPLETE FEED -----
VITAMIN A-500	67,000,000 IU	10,000 IU
VITAMIN D3-500	6,700,000 IU	1,000 IU
VITAMIN E-50%	167,500 IU	25.0 IU
VITAMIN K3	10.05 gm	1.50 mg
THIAMINE HYDROCHLORIDE USP	10.05 gm	1.50 mg
RIBOFLAVIN 95% F.G.	33.50 gm	5.00 mg
PYRIDOXINE USP	10.05 gm	1.50 mg
VITAMIN B12-SUPPLEMENT 1%	75.00 mg	15.00 mcg
NIACIN USP	134.00 gm	20.00 mg
CALCIUM D-PANTOTHENATE USP	67.00 gm	10.00 mg
FOLIC ACID USP	6.70 gm	1.00 mg
D-BIOTIN SUPPLEMENT 1%	134.00 mg	200.00 mcg
CHOLINE CHLORIDE	2010.00 gm	300.00 mg
VANILLIC CRYSTALS	33.50 gm	5.00 mg



53. A supplement formula according to claim 52 wherein the mineral premix is prepared according to the following composition:

COMPOSITION ----- INGREDIENT -----	POTENCY/GM -----	FORMULA -----	ACTIVE ----- /Kg PREMIX -----
FERROUS SULPHATE (Fe SO <sub>4</sub> .H <sub>2</sub> O)	310.0 mg	216.125 gm	67.000 gm
ZINC SULPHATE	360.0 mg	186.110 gm	67.000 gm
MANGANESE SULPHATE (Mn SO <sub>4</sub> .H <sub>2</sub> O)	280.0 mg	95.715 gm	26.800 gm
POTASSIUM IODIDE(STAB)	68.8 mg	0.488 gm	0.335 gm
COBALT CARBONATE	460.0 mg	0.728 gm	0.335 gm
COPPER SULPHATE	250.0 mg	13.400 gm	3.350 gm
SODIUM SELENITE	400.0 mg	0.251 gm	0.101 gm
LIMESTONE CARRIER	1000.0 mg	487.183 gm	
		1000.000 gm	

54. A supplement formula according to claim 53 wherein the supplement food base and complete feed mineral addition are blended to provide the following composition;

COMPOSITION ----- INGREDIENT -----	ACTIVE ----- /Tonne PORCOMEGA* -----	ACTIVE ----- /Kg COMPLETE FEED -----
FERROUS SULPHATE-Fe (Fe SO <sub>4</sub> .H <sub>2</sub> O)	670.00 gm	100.500 mg
ZINC SULPHATE-Zn	670.00 gm	100.500 mg
MANGANESE SULPHATE-Mn (Mn SO <sub>4</sub> .H <sub>2</sub> O)	268.00 gm	40.200 mg
POTASSIUM IODIDE(STAB)-I	3.35 gm	0.502 mg
COBALT CARBONATE-Co	3.35 gm	0.502 mg
COPPER SULPHATE-Cu	33.50 gm	5.000 mg
SODIUM SELENITE-Se	1.01 gm	0.150 mg

55 A supplement formula according to claim 50 wherein the formula is fed to pigs as a breeder supplement.

56 A supplement formula according to claim 55 wherein the supplement is 15% of the total diet of the animal.

57 A supplement formula for an animal which includes fish meal as a source of omega 3 long chain fatty acids and which is greater than 5% of the total dietary intake of the animal wherein the supplement includes the following constituents:

- i) a foods base including fishmeal;
- ii) a vitamin premix;
- iii) a mineral premix; and
- iv) choline chloride.

58 A supplement formula according to claim 57 wherein ingredient i) is a supplement base and ingredients ii) -iv) are nutritional additives.

59 A supplement according to claim 58 wherein the constituents are blended in the following proportions;

	kg	%
PORCOMEGA* BASE SP	984.15	98.415
VITAMIN PREMIX PV 004	2.50	0.250
MINERAL PREMIX PM 004	10.00	1.000
CHOLINE CHLORIDE 60%	3.35	0.335
	1000.00	100.000

- 60 A supplement formula according to claim 59 wherein the vitamin premix is prepared according to the following composition;

COMPOSITION ----- INGREDIENT -----	POTENCY/GM -----	FORMULA -----	ACTIVE ----- /Kg PREMIX -----
VITAMIN A-500	500,000 IU	53.60 gm	26,800,000 IU
VITAMIN D3-500	500,000 IU	5.36 gm	2,680,000 IU
VITAMIN E-50%	500 IU	134.00 gm	67,000 IU
VITAMIN K3	1000 mg	10.05 gm	10.05 gm
THIAMINE HYDROCHLORIDE USP	892 mg	4.51 gm	4.02 gm
RIBOFLAVIN 95% F.G.	950 mg	14.11 gm	13.40 gm
PYRIDOXINE USP	823 mg	4.88 gm	4.02 gm
VITAMIN B12-SUPPLEMENT 1%	10 mg	4.02 gm	40.20 mg
NIACIN USP	990 mg	54.14 gm	53.60 gm
CALCIUM d-PANTOTHENATE USP	920 mg	29.13 gm	26.80 gm
FOLIC ACID USP	920 mg	2.91 gm	2.68 gm
D-BIOTIN SUPPLEMENT 1%	10 mg	53.60 gm	536.00 mg
VANILLIC CRYSTALS	1000 mg	13.40 gm	13.40 gm
WHEAT MEAL CARRIER		616.29 gm	
		----- 1000.00 gm -----	

61. A supplement formula according to claim 60 wherein the supplement base and complete feed vitamin addition are blended to provide the following composition:

COMPOSITION ----- INGREDIENT -----	ACTIVE ----- /Tonne PORCOMEGA* -----	ACTIVE ----- /Kg COMPLETE FEED -----
VITAMIN A-500	67,000,000 IU	10,000 IU
VITAMIN D3-500	6,700,000 IU	1,000 IU
VITAMIN E-50%	167,500 IU	25.0 IU
VITAMIN K3	10.05 gm	1.50 mg
THIAMINE HYDROCHLORIDE USP	10.05 gm	1.50 mg
RIBOFLAVIN 95% F.G.	33.50 gm	5.00 mg
PYRIDOXINE USP	10.05 gm	1.50 mg
VITAMIN B12-SUPPLEMENT 1%	75.00 mg	15.00 mcg
NIACIN USP	134.00 gm	20.00 mg
CALCIUM d-PANTOTHENATE USP	67.00 gm	10.00 mg
FOLIC ACID USP	6.70 gm	1.00 mg
D-BIOTIN SUPPLEMENT 1%	134.00 mg	200.00 mcg
VANILLIC CRYSTALS	33.50 gm	5.00 mg

62. A supplement formula according to claim 61 wherein the mineral premix is prepared according to the following composition:

COMPOSITION ----- INGREDIENT -----	POTENCY/GM -----	FORMULA -----	ACTIVE ----- /Kg PREMIX -----
FERROUS SULPHATE (Fe SO <sub>4</sub> .H <sub>2</sub> O)	310.0 mg	216.125 gm	67.000 gn
ZINC SULPHATE	360.0 mg	186.110 gm	67.000 gn
MANGANESE SULPHATE (Mn SO <sub>4</sub> .H <sub>2</sub> O)	280.0 mg	95.715 gm	26.800 gn
POTASSIUM IODIDE(STAB)	68.8 mg	0.488 gm	0.335 gn
COBALT CARBONATE	460.0 mg	0.728 gm	0.335 gn
COPPER SULPHATE	250.0 mg	13.400 gm	3.350 gn
SODIUM SELENITE	400.0 mg	0.251 gm	0.101 gn
LIMESTONE CARRIER	1000.0 mg	487.185 gm	
		1000.000 gm	

63. A supplement formula according to claim 62 wherein the supplement food base and complete feed mineral addition are blended to provide the following composition;

COMPOSITION ----- INGREDIENT -----	ACTIVE ----- /Tonne PORCOMEGA* -----	ACTIVE ----- /Kg COMPLETE FEED -----
FERROUS SULPHATE-Fe (Fe SO <sub>4</sub> .H <sub>2</sub> O)	670.00 gm	100.500 mg
ZINC SULPHATE-Zn	670.00 gm	100.500 mg
MANGANESE SULPHATE-Mn (Mn SO <sub>4</sub> .H <sub>2</sub> O)	268.00 gm	40.200 mg
POTASSIUM IODIDE(STAB)-I	3.35 gm	0.502 mg
COBALT CARBONATE-Co	3.35 gm	0.502 mg
COPPER SULPHATE-Cu	33.50 gm	5.000 mg
SODIUM SELENITE-Se	1.01 gm	0.150 mg

64 A supplement formula according to claim 63 wherein the formula is fed to pigs as a lactating supplement.

65 A supplement formula according to claim 64 wherein the supplement is 15% of the total diet of the animal.

66 A supplement formula for an animal which includes fish meal as a source of omega 3 long chain fatty acids and which is greater than 5% of the total dietary intake of the animal wherein the supplement includes the following constituents:

- i) a foods base including fishmeal;
- ii) a vitamin premix;
- iii) a mineral premix.

67 An animal feed supplement according to claim 31 wherein ingredient i) is a supplement base and ingredients ii) -iii) are nutritional additives.

68 A supplement formula according to claim 67 wherein the constituents are blended in the following proportions;

	kg	%
PORCOMEGA* BASE SP	987.50	97.080
VITAMIN PREMIX PV 005	2.50	0.250
MINERAL PREMIX PM 005	10.00	1.000
	-----	-----
	1000.00	100.000
	-----	-----

0904474-131601

69 A supplement formula according to claim 70 wherein the vitamin premix is prepared according to the following composition;

COMPOSITION ----- INGREDIENT	POTENCY/GM	FORMULA	ACTIVE ----- /Kg PREMIX
VITAMIN A-500	500,000 IU	40.20 gm	20,100,000 IU
VITAMIN D3-500	500,000 IU	8.04 gm	4,020,000 IU
VITAMIN E-50%	500 IU	53.60 gm	26,800 IU
VITAMIN K3	1000 mg	2.68 gm	2.68 gm
THIAMINE HYDROCHLORIDE USP	892 mg	3.00 gm	2.68 gm
RIBOFLAVIN 95% F.G.	950 mg	7.05 gm	6.70 gm
PYRIDOXINE USP	823 mg	4.88 gm	2.68 gm
VITAMIN B12-SUPPLEMENT 1%	10 mg	2.68 gm	26.80 mg
NIACIN USP	990 mg	27.07 gm	26.80 gm
CALCIUM d-PANTOTHENATE USP	920 mg	23.30 gm	21.44 gm
FOLIC ACID USP	920 mg	1.46 gm	1.34 gm
D-BIOTIN SUPPLEMENT 1%	10 mg	13.40 gm	134.00 gm
VANILLIC CRYSTALS	1000 mg	6.70 gm	6.70 gm
WHEAT MEAL CARRIER		880.40 gm	
		1000.00 gm	

70. A supplement formula according to claim 69 wherein the supplement base and complete feed vitamin addition are blended to provide the following composition:

COMPOSITION ----- INGREDIENT	ACTIVE ----- /Tonne PORCOMEGA*	ACTIVE ----- /Kg COMPLETE FEED
VITAMIN A-500	50,250,000 IU	7,538 IU
VITAMIN D3-500	10,050,000 IU	1,508 IU
VITAMIN E-50%	67,000 IU	10 IU
VITAMIN K3	6.70 gm	1.00 mg
THIAMINE HYDROCHLORIDE USP	6.70 gm	1.00 mg
RIBOFLAVIN 95% F.G.	16.75 gm	2.51 mg
PYRIDOXINE USP	6.70 gm	1.00 mg
VITAMIN B12-SUPPLEMENT 1%	67.00 mg	10.05 mcg
NIACIN USP	67.00 gm	10.05 mg
CALCIUM d-PANTOTHENATE USP	53.60 gm	8.04 mg
FOLIC ACID USP	3.35 gm	0.50 mg
D-BIOTIN SUPPLEMENT 1%	335.00 mg	50.25 mcg
VANILLIC CRYSTALS	16.75 gm	2.51 mg

71. A supplement formula according to claim 70 wherein the mineral premix is prepared according to the following composition:

COMPOSITION ----- INGREDIENT	POTENCY/GM	FORMULA	ACTIVE ----- /Kg PREMIX
FERROUS SULPHATE (Fe SO <sub>4</sub> .H <sub>2</sub> O)	310.0 mg	216.125 gm	67.000 gm
ZINC SULPHATE	360.0 mg	186.110 gm	67.000 gm
MANGANESE SULPHATE (Mn SO <sub>4</sub> .H <sub>2</sub> O)	280.0 mg	95.715 gm	26.800 gm
POTASSIUM IODIDE(STAB)	68.8 mg	0.488 gm	0.335 gm
COBALT CARBONATE	460.0 mg	0.728 gm	0.335 gm
COPPER SULPHATE	250.0 mg	13.400 gm	3.350 gm
SODIUM SELENITE	400.0 mg	0.251 gm	0.101 gm
LIMESTONE CARRIER	1000.0 mg	487.183 gm	487.183 gm
		1000.000 gm	

72. A supplement formula according to claim 71 wherein the supplement food base and complete feed mineral addition are blended to provide the following composition:

COMPOSITION ----- INGREDIENT	ACTIVE ----- /Tonne PORCOMEGA*	ACTIVE ----- /Kg COMPLETE FEED
FERROUS SULPHATE-Fe (Fe SO <sub>4</sub> .H <sub>2</sub> O)	670.00 gm	100.500 mg
ZINC SULPHATE-Zn	670.00 gm	100.500 mg
MANGANESE SULPHATE-Mn (Mn SO <sub>4</sub> .H <sub>2</sub> O)	268.00 gm	40.200 mg
POTASSIUM IODIDE(STAB)-I	3.35 gm	0.502 mg
COBALT CARBONATE-Co	3.35 gm	0.502 mg
COPPER SULPHATE-Cu	33.50 gm	5.025 mg
SODIUM SELENITE-Se	1.01 gm	0.151 mg

73 A supplement formula according to claim 72 wherein the formula is fed to pigs as a grower supplement.

74 A supplement formula according to claim 73 wherein the supplement is 15% of the total diet of the animal.

75 A supplement formula for an animal which includes fish meal as a source of omega 3 long chain fatty acids and which is greater than 5% of the total dietary intake of the animal wherein the supplement includes the following constituents:

- i) a foods base including fishmeal;
- ii) a vitamin premix; and
- iii) a mineral premix.

76 A supplement formula according to claim 75 wherein ingredient i) is a supplement base and ingredients ii) -iii) are nutritional additives.

77 A supplement according to claim 76 wherein the constituents are blended in the following proportions;

-----	kg	%
PORCOMEGA* BASE SP	987.50	97.080
VITAMIN PREMIX PV 006	2.50	0.250
MINERAL PREMIX PM 006	10.00	1.000
	-----	-----
	1000.00	100.000
	-----	-----



78 A supplement formula according to claim 77 wherein the vitamin premix is prepared according to the following composition;

## COMPOSITION

INGREDIENT	POTENCY/Gm	FORMULA	ACTIVE /Kg PREMLX
VITAMIN A-500	500,000 IU	26.80 gm	13,400,000 IU.
VITAMIN D3-500	500,000 IU	5.36 gm	2,680,000 IU.
VITAMIN E-50%	500 IU	53.60 gm	26,800 IU.
VITAMIN K3	1000 mg	2.68 gm	2.68 gm
THIAMINE HYDROCHLORIDE USP	892 mg	3.00 gm	2.68 gm
RIBOFLAVIN 95% F.G.	950 mg	5.64 gm	5.36 gm
PYRIDOXINE USP	823 mg	4.88 gm	2.68 gm
VITAMIN B12-SUPPLEMENT 1%	10 mg	1.34 gm	13.40 mg
NIACIN USP	990 mg	18.95 gm	18.76 gm
CALCIUM d-PANTOTHENATE USP	920 mg	20.39 gm	18.76 gm
FOLIC ACID USP	920 mg	1.46 gm	1.34 gm
D-BIOTIN-SUPPLEMENT 1%	10 mg	13.40 gm	134.00 mg
VANILLIC CRYSTALS	1000 mg	4.02 gm	4.02 gm
WHEAT MEAL (CARRIER)	1000 mg	0.40 gm	
		1000.00 gm	

79. A supplement formula according to claim 78 wherein the supplement base and complete feed vitamin addition are blended to provide the following composition:

COMPOSITION	ACTIVE	ACTIVE
INGREDIENT	/Tonne PORCOMEGA*	/Kg COMPLETE FEED
VITAMIN A-500	33,500,000 IU	5,025 IU
VITAMIN D3-500	6,700,000 IU	1,005 IU
VITAMIN E-50%	67,000 IU	10.05 IU
VITAMIN K3	6.70 gm	1.01 mg
THIAMINE HYDROCHLORIDE USP	6.70 gm	1.01 mg
RIBOFLAVIN 95% F.G.	13.40 gm	2.01 mg
PYRIDOXINE USP	6.70 gm	1.01 mg
VITAMIN B12-SUPPLEMENT 1%	33.50 mg	5.03 mcg
NIACIN USP	46.90 gm	7.04 mg
CALCIUM d-PANTOTHENATE USP	46.90 gm	7.04 mg
FOLIC ACID USP	3.35 gm	0.50 mg
D-BIOTIN SUPPLEMENT 1%	335.00 mg	50.00 mcg
VANILLIC CRYSTALS	10.05 gm	1.51 mg

80. A supplement formula according to claim 79 wherein the mineral premix is prepared according to the following composition:

COMPOSITION ----- INGREDIENT	POTENCY/GM	FORMULA	ACTIVE ----- /Kg PREMIX
FERROUS SULPHATE (Fe SO <sub>4</sub> .H <sub>2</sub> O)	310.0 mg	216.125 gm	67.000 gm
ZINC SULPHATE	360.0 mg	186.110 gm	67.000 gm
MANGANESE SULPHATE (Mn SO <sub>4</sub> .H <sub>2</sub> O)	280.0 mg	95.715 gm	26.800 gm
POTASSIUM IODIDE(STAB)	68.8 mg	0.488 gm	0.335 gm
COBALT CARBONATE	460.0 mg	0.728 gm	0.335 gm
COPPER SULPHATE	250.0 mg	13.400 gm	3.350 gm
SODIUM SELENITE	400.0 mg	0.251 gm	0.101 gm
LIMESTONE CARRIER	1000.0 mg	165.330 gm	165.330 gm
		1000.000 gm	

81. A supplement formula according to claim 80 wherein the supplement food base and complete feed mineral addition are blended to provide the following composition;

COMPOSITION ----- INGREDIENT	ACTIVE ----- /Tonne PORCOMEGA*	ACTIVE ----- /Kg COMPLETE FEED
FERROUS SULPHATE-Fe (Fe SO <sub>4</sub> .H <sub>2</sub> O)	670.00 gm	100.500 mg
ZINC SULPHATE-Zn	670.00 gm	100.500 mg
MANGANESE SULPHATE-Mn (Mn SO <sub>4</sub> .H <sub>2</sub> O)	268.00 gm	40.200 mg
POTASSIUM IODIDE(STAB)-I	3.35 gm	0.502 mg
COBALT CARBONATE-Co	3.35 gm	0.502 mg
COPPER SULPHATE-Cu	33.50 gm	5.025 mg
SODIUM SELENITE-Se	1.01 gm	0.151 mg

82. A supplement formula according to claim 81 wherein the formula is fed to pigs as a finishing supplement.

**PORCOMEGAM - PROCESS FLOW DIAGRAM****CONFIDENTIAL**